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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/652,202	09/02/2003	Yo Yanagida	06753.0562	1710
7590	03/28/2005		EXAMINER HUANG, SIHONG	
Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P. 1300 I Street, N.W. Washington, DC 20005-3315			ART UNIT 2632	PAPER NUMBER

DATE MAILED: 03/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/652,202

Applicant(s)

YANAGIDA ET AL.

Examiner

Sihong Huang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Kudo (JP 08-098277).

Regarding claim 1, Kudo disclosed a power line communication device (Fig. 1) comprising:

an internal electronic control unit (e.g. 2 and 3) connected to a connection point (11a) on a power line (1), the internal electronic control unit (2, 3) communicating with an external electronic control unit (the control unit or panel which sends the control communication signals to 3) by a communication signal superimposed on a supply voltage applied to the power line (see pp 0022 of the English translation); and

an impedance element (10, see lines 7-11 of pp 0019 and pp 0023 of the English translation) inserted between the connection points (11a) and an external load (4):

The preamble “for a vehicle” is merely a statement of intended use. Preamble is not part of limitation when the claim is drawn to a structure and the portion of the claim following the preamble is self-contained description of the structure not depending for completeness upon the introductory clause. *Catalina Mktg. Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808, 62

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USPQ2d 1781, 1784 (Fed. Cir. 2002). Furthermore, the device of Kudo inherently can be used for a vehicle.

Regarding claims 2 and 3, the impedance element of Kudo includes a coil L1 and a capacitor (C4).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kudo (JP 08-098277) in view of de Buda (US Pat. No. 6,549,120 B1).

Kudo differs from claim 4 of the present invention in that Kudo does not disclose that the communication signal is amplitude-shift-key modulated. However, de Buda, from the same field of endeavor, similarly teaches a power line communication device or system in which different modulation techniques (such as amplitude shift keying (ASK), phase shift keying (PSK) and frequency shift keying (FSK)) can be employed (col. 2, line 13 and col. 11, lines 30-33). Based on this teaching, it would have been obvious to a person having ordinary skill in the art at the time of the invention to use any type of well known modulation techniques including ASK in the system or device of Kudo for the purpose of transmitting the signals over power line. One motivation to use ASK is to overcome both the attenuation of high carrier frequency due to the impedance of a power distribution transformer and the noise on power lines at lower frequencies.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lesesky et al. (US Pub. No. 2002/0030403 A1) is cited to show a communication system over power line for vehicle.

Beggs (US Pat. No. 4,344,066), Sutterlin (US Pat. No. 5,485,040) and Wasaki et al. (US Pat. No. 6,667,685 B2) are cited to show power line noise filters.

Wasaki (US Pub. No. 2003/0095036 A1) does not qualify as a prior art, however, it claims a foreign application for priority which has an earlier filing date (JP 2001-352853 was filed Nov. 19, 2001). Wasaki in Fig. 1 clearly shows the claimed structure as recited in claim 1 of the present invention (i.e., an impedance element/circuit 10 between the connection point 1a of a power line communication device 70 to a power line 51 and a load 80).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sihong Huang whose telephone number is 571-272-2958. The examiner can normally be reached on Mon, Thu & Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J. Wu can be reached on 571-272-2964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sihong Huang
March 17, 2005

A handwritten signature in black ink, consisting of several loops and a long horizontal stroke extending to the right.